

Copolymer of Caprolactam and the  
Oxidation Product of Polyacetylene  
Glyco Glycol, by M. Tsuruta, F.  
Kobayashi, K. Matsuura, 6 pp.

JAPANESE, for, Kogyo Kagaku Zasshi,  
Vol. LIII, No 9, 1959, pp 1089-1091.

ATS-37M39J

47/55-2447

182,889

Sci

Vol IV, No 2

Mar 62

Curing Reactions of Furan Series Resins. IV.  
Curing Reaction of 2-Hydroxyethyl-5-(5-Furfuryl)-  
Furfurylfuran, by Y. Nakamura, H. Saito.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 62, 1959  
pp1178-1178. P911011567  
AEC LA-tr-66-74

Sci/Chemistry  
Feb 67

518,519

Process of Free Carbon Formation in Coal-Pitch  
Containing a Nitro-Compound, by Shigehiko Yamada  
20 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol. LXII  
No 9, 1959, pp 1313-1318.

SLA 60-14246

Sci  
Jan 62  
Vol. LXII, No 10

174 911

A Method of Evaluating the Solubility of Polymers  
From Gas Chromatographic Data, by H. K. Kojima,  
Junkichi Kojima, Sukenaga Murai. 12 pp

JAPANESE, per, Kagaku Kagaku Bussai, Vol. III,  
No 9, 1959, pp 1371-1372

SIA 60 04247

Sol  
Jan 62  
Vol. III, No 10

181, 218

ANALYSIS OF Acrylic Fibers by Infrared  
Spectrum, by Akihisa Miyake, 15 pp.

JAPANESE, por, Kogyo Kagaku Zasshi, Vol LXII,  
No 9, 1959, pp 1449-1453.

SLA 60-16672

198, 015

Sci

May 62

Vol 4, No 8

Second-Order Transition Points of Polyvinyl Alcohol  
and Their Dependence on Polymerization Degree,  
by Heihachiro Ito, 11 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII, 1959,  
pp 1453-1455. 9225323  
AEC-SC-T-64-1611

Sci-Facts *Chem*  
Dec 64

269,365

Catalytic Action of "Oxidation Addition Reagents"  
for the Oxidation of Cumene in Air, by Y. Teraoka,  
Y. Matsumoto,

*Kogyo Kagaku Zasshi*

JAPANESE, per, ~~J. Chem Soc Japan Ind Chem Sect,~~  
Vol LXIII, No 10, 1959, pp 1555-1559.

ATS JJ-2150

Sci - Chem

May 60

115,432

Imoto, M., Huang, C., Hashizume, J., Sano, S.,  
and Amamiya, K.  
KINETIC STUDIES OF THE REACTIONS OF  
2,4-DIMETHYLBENZYL ALCOHOL AND BIS-(2,4-DI-  
METHYLBENZYL) ETHER WITH ALIPHATIC ACIDS.  
[1964] 11p

Order from ATS \$11.50

ATS-09Q74J

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 10, p. 1807-1811.

(Chemistry--Organic, TT, v. 11, no. 12)

TT-64-12768

- I. Imoto, M.
- II. Huang, C.
- III. Hashizume, J.
- IV. Sano, S.
- V. Amamiya, K.
- VI. ATS-09Q74J
- VII. Associated Technical  
Services, Inc.,  
East Orange, N. J.

Office of Technical Services



Copolymerization of Acrylonitrile With  
Ethylene Dimethacrylate, by Chuji Aso,  
Kazuo Sadakata, 13 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII,  
No 10, 1959, pp 1610-1612.

SLA 60-18152

Sci.

194, 300

May 62

Avol. 4, No 10

Synthesis of Acetylene by Thermal Cracking  
of Methane in the Presence of Hydrogen, by  
T. Kunugi, N. Negishi, W. Ito, T. Ikeda,  
15pp  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 62,  
1959, No 11, pp 1677-1681  
SLA TT-64-30139

Sci - Eng  
May 67

327,396

Thermal Treatment of Polyethylene Terephthalate in  
a Vacuum, by H. Sotae, A. Kajitara.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII,  
No 11, 1959, pp 1766-1770.  
NASA TT F-8889

Sci-Chem

Jul 64

U.S. GOVERNMENT ONLY

262,906

Effects of Electron-Beam Irradiation of Polyethylene  
Terephthalate, by H. Sobue, A. Kajima.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII, No 11,  
1959, pp 1771-1773.

NASA TT F-8449

Sci - Chem, Electron

Mar 64

U. S. GOVERNMENT ONLY

251,962

Halogenation of Polypropylene, II, by  
Shu Kambara, Takao Ohashika, 21 pp.

JAPANESE, per, Kogyo Kagaku Zasshi,  
Vol LXXII, No 11, 1959, pp 1781-1785.

SLA 60-16673

Sci  
Vol IV, No 7  
Apr 62

192, 730

Preparation and Polymerization of  $\alpha$ -(2-Cyanoethyl)-  
Acrylonitrile, by Makoto Tanaka, Seiji Asai,  
Shimpei Takaya, 12 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII,  
No 11, 1959, pp 1786-1788.

SLA 61-10001

Sci

Apr 61

146, 192

Reactions Between Diphenyl Dichloroallene  
and Some Inorganic Compounds, by T. Takiguchi,  
6 pp.

JAPANESE, per, Kogyo Kagaku Zasshi,  
Vol LXXII, No 12, 1959, pp 1875-1876.

MAES-95M42J

Sci  
Vol IV, No 11.  
Jun 62

199, 228

~~XXXXXXXXXXXX~~

Permeability of Polymer Films to Gases,  
by Bunshichi Takeda, Bunnosuke  
Yamaguchi, 33 pp.

JAPANESE, per, Kogyo Kagaku Zasshi,  
Vol LXXII, No XXXII 12, 1959, pp 1897-1904.

SLA 60-16578

Sci

Feb 62

186, 688



The Effects of Gamma-Irradiation on Polyethylene  
Terephthalate, by H. Sobue, A. Kajihara.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII,  
No 12, 1959, pp 1908-1911.  
NASA TT F-9008

Sci-Chem

Aug 64

U.S. GOVERNMENT ONLY

265,124

Matsuda, S. and Matsuda, H.  
SYNTHESES OF DIALKYLTIN DIODIDES. [1960]  
12p.  
Order from ATS \$19.45      ATS-51M47]  
Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 1, p. 114-118.

148,645

61-12664

1. Tin iodides--Synthesis
2. Tin compounds (Organic)--  
    Synthesis
- I. Matsuda, S.
- II. Matsuda, H.
- III. ATS-51M47]
- IV. Associated Technical  
    Services, Inc., East  
    Orange, N. J.

Office of Technical Services

(Chemistry--Organic, TT, v. 5, no. 7)

Shina, K. and Kumada, M.  
A REACTION OF SILICON-CONTAINING AMINO  
COMPOUNDS. [1962] 12p.  
Order from K-H \$15.00 K-H 10512 b

Trans. of [Kogyo Kagaku Zasshi] (Japan) 1960, v. 63  
[no. 1] p. 173-175.

DESCRIPTORS: \*Amines, \*Silicon, \*Chemical  
reactions.

(Chemistry--Organic, TT, v. 9, no. 7)

62-17620

- I. Shina, K.
- II. Kumada, M.
- III. K-H-10512-b
- IV. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

Office of Technical Services

Thermal Degradation of Polytrifluorochloroethylene in Air, by Takaomi Satokawa, Yutaka Komantani, Tatsuho Susayoshio, 19 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIII, No 1, 1960, pp 178-183.

SLA 60-16674

Sci  
Vol IV, No 7  
Apr 62

192,648

Epoxydation Reaction of Dehydrochlorinated  
Polyvinyl Chloride, by Kiichi Takemoto,  
11 pp.

JAPANESE, per, Kogyo Kagaku Zasshi,  
Vol LXXXI, No 1, 1960, pp 186-188.

SLA 60-16671

Sci  
Vol IV, No 5  
Mar 62

188, 445

Homogenous System Reaction Between Polyvinyl  
Alcohol and Acrylamide, by Heihachiro Ito, 19 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIII,  
No 2, 1960, pp 338-341.

SLA 61-10007

Sci

Apr 61

146,183

Arai, Teikichi and others.  
ENTRANCE EFFECT AND BARUS EFFECT (IN  
MOLTEN-POLYMER EXTRUSION). [1963] [34p] 50refs  
Order from SLA \$3.60 TT-64-14358

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 3, p. 418-427.

DESCRIPTORS: \*Plastics, \*Extrusion, \*Hydrodynamics.  
Polymers, Viscoelasticity, Fluid flow, Density,  
Stresses, Mathematical analysis.

(Mechanics--Hydrodynamics, TT, v. 11, no. 10)

TT-64-14358

I. Arai, T.

Office of Technical Services

Fukasawa, Yoshiki.  
NON-NEWTONIAN FLOW OF POLYVINYL CHLORIDE  
AT HIGH TEMPERATURE. 28 June 62, 10p. (figs.  
tables omitted).  
Order from SLA \$1.10

63-14038

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
p. 459-564.

DESCRIPTORS: \*Polyvinyl chloride, \*Fluid flow,  
Viscosity, Molecular weight, Elasticity, Friction,  
Shear stresses, Heat of activation, \*Plasticizers,  
Lubricants.

Flow character of PVC was measured by an extrusion  
capillary viscometer. The flow curves indicated  
considerable non-Newtonian character at lower temper-  
atures. At temperatures above the melting point (206°C)  
of the PVC, the flow curves obeyed the Bueche-Harding  
equation, which has successfully explained the de-  
(Materials--Plastics, TT, v. 10, no. 7) (over)

63-14038

1. Fukasawa, Y.

Office of Technical Services



Reaction of Sulfuryl Diisocyanate With Amines,  
by N. Onodera.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66, 1963,  
pp 481-484.  
HTC-71-16222-07C

Jan 72

Okajima, Saburo and Kubo, Teruo.  
DYEING CONDITIONS OF POLYACRYLONITRILE  
FILAMENT WITH CONGO RED FOR DICHROIC  
STUDY AND ITS APPLICATION TO THE DETERMI-  
NATION OF THE DEGREE OF ORIENTATION. Rept.  
no. 1 of Studies on Acrylic System Synthetic Fibers.  
[1960] 18p. 18 refs.  
Order from SLA m\$2.40, ph\$3.30 60-18146

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 3, p. 523-528.

A straight polymer of acrylonitrile whose molecular  
weight was 78000 was wet-spun by dissolving it in 70%  
nitric acid. When in an undried state, this fiber could  
be dyed easily to an intense color by direct dyes, and  
the degree of orientation of this fiber could be deter-  
mined from dichroism which appeared by the use of  
Congo Red. When drawn by using a warm-water bath  
at below 55°C or a 40% nitric acid bath (normal tem-  
perature), both cases oriented at the same tendency at  
(Materials--Textiles, TT, v. 5, no. 3) (over)

60-18146

1. Synthetic fibers--  
Processing
2. Dyes--Applications
1. Okajima, S.
- II. Kubo, T.
- III. Title: Studies...

143,049

Office of Technical Services

Polymerization of Vinyl Acetate Using  
Triallyl Borate. Part I., by P. Ito.  
JAPANESE, per. Kogyo Kagaku Zasshi, vol. 61,  
no. 5, 1958, pp. 529-532.  
NWC 71-12829-873

July 1971

Polymerization of Vinyl Acetate Using  
Triallylborate. Part II. Reaction Mechanism  
of the First Stage of Polymerization of  
Vinyl Acetate Using a Triallylborate Catalyst  
by F. Ide.  
JAPANESE, per, Kogyo Kagaku Zasshi, vol. 61,  
no. 3, 1958, pp. 533-539.  
NID 71-12833-100

July 1971

61-10682

Nagase, Kunihiko and Sakaguchi, Khei.  
(DISTRIBUTION) OF PRODUCTS OF ADDITION OF  
ETHYLENE OXIDE TO LAURYL ALCOHOL AND  
NONYLPHENOL. [1961] [22]p. (7 figs. omitted)  
16 refs.

Order from SLA \$2.60 61-10682

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 4, p. 588-592.

DESCRIPTORS: "Ethylene oxide," "Alcohols," "Phenols."  
Nonyl radicals, Chemical reactions, Statistical  
distributions.

I. Nagase, K.  
II. Sakaguchi, K.

16160.

Office of Technical Services

(Chemistry--Physical, TT, v. 6, no. 1)

Indirect Coulometric Titration of Reducible ~~at~~  
Organic Compounds by Produced Oxidic Ion, by Takeo  
Takahashi, Hiroshi Sakurai, 15 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIII,  
1960, pp 608-611.

AEC UCRL-Trans-635(L)

Sci - Chem  
May 61

150,378

TT-65-14157

Field 111

Furukawa, J.; Tsuruta, T.; Fujita, Y.; Kanisaki, A.  
POLYMERIZATION OF VINYL CHLORIDE WITH  
ORGANOMETALLIC COMPOUNDS. 32p, 23refs.  
Order from SLA: \$3.60 as TT-65-14157

Trans. of Kogyo Kagaku Zasshi (Japan) v63 n4 p645-52  
1960.

MB 674

61-10830

Tarama, Kimio, Teranishi, Shichiro, and Hattori, Kenzo.

OXIDATION MECHANISM OF CARBON MONOXIDE WITH  $\text{Cr}_2\text{O}_3$ . [1961] 14p. 17 refs.

Order from SLA \$1.60 61-10830

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63, no. 5, p. 714-717.

DESCRIPTORS: Carbon compounds, \*Monoxides, Oxidation, Chromium compounds, \*Oxides, Adsorption, \*Catalysts, Semiconductors, Electrical conduction, Chemical reactions, \*Catalysis.

I. Tarama, K  
II. Teranishi, S  
III. Hattori, K

161810

Office of Technical Services

(Chemistry--Physical, TT, v. 6, no. 1)



Synthesis of Maleic Anhydride by the  
Catalytic Oxidation of  $C_4$  Hydrocarbons With  
Air, by M. Matsumoto, T. Ikawa, M. Hagiwara,  
8 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXI(1),  
No 5, 1960, pp 734-737.

OTS  
ATS-69444

203, 217

Sci

Jun 62

61-10272

Fujimoto, Teruo, Inoue, Yukio, and Kobatake,  
Yonosuke.  
CORRELATION OF INTERNAL STRUCTURE OF  
HIGH POLYMER FILMS WITH THEIR PHYSICAL  
PROPERTIES. [1960] 13p. 5 refs.  
Order from SLA ml\$2.40, ph\$3.30 61-10272

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 5, p. 851-854.

1. Polymers--Physical properties
  2. Vinyl films--Physical properties
  3. Coatings--Physical properties
- I. Fujimoto, T.
  - II. Inoue, Y.
  - III. Kobatake, Y.

Office of Technical Services

141,148  
(Chemistry--Organic, TT, v. 5, no. 2)

61-16523

I. Yoshida, M.

Yoshida, Michio.  
AN ATTEMPT AT THE POLAROGRAPHIC DETERMINATION OF VINYL PYRIDINES. [1961] Sp. 4 refs.  
Order from SLA \$1.10 61-16523

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 5, p. 893-894.

DESCRIPTORS: Vinyl radicals, \*Pyridines, Determination, \*Polarographic analysis, Quantitative analysis.

Quantitative analysis of vinylpyridine system compounds is comparatively troublesome, and analysis by near-ultraviolet absorption, for example, is being conducted recently, but it has become clear as a result of these experiments that in the area of small concentration, quantitative analysis is possible polarographically as well. (Author)

Office of Technical Services

(Chemistry--Analytical, IT, v. 6, no. 6)

176546

Nakamura, Senichi, Azuma, Nobuyuki, and Arai,  
Zenzaburo.  
DECOMPOSITION OF BORON NITRIDE WITH ACID  
AND THE EFFECTS OF SOME OXIDIZING AGENTS.  
[1961] 12p. 8 refs.  
Order from SLA ml\$2. 40, ph\$3. 30 61-10589

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 6, p. 903-906.

(Chemistry--Physical, TT, v. 5, no. 12)

61-10589

- I. Boron nitrides--  
Decomposition
- I. Nakamura, S.
- II. Azuma, N.
- III. Arai, Z.

AEC ORNL 6 1242  
9233399  
148570

Office of Technical Services

61-10601

Takimoto, Masayoshi and Sawada, Masaru.  
INVESTIGATION OF THE DETERMINATION OF  
SEVERAL TYPES OF CYANAMIDE DERIVATIVES  
OTHER THAN GUANIDINE, DICYANDIAMIDE, AND  
BIGUANIDE. Rept. no. 3 of Studies on Separation and  
Determination Methods for Cyanamide Derivatives;  
[Paper] read in part at the Annual Conference of the  
Chemical Society of Japan (no. 11) Apr 58. [1961] 10p.  
10 refs.  
Order from SLA \$1.10 61-10601

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 6, p. 967-970.

DESCRIPTORS: \*Colorimetric analysis, \*Cyanamide,  
\*Thiourea, \*Urea, \*Urea derivatives, Cyano radicals,  
\*Guanidines, Separation, Determination.

(Chemistry--Analytical, TT, v. 6, no. 1)

- I. Takimoto, M
- II. Sawada, M.
- III. Title: Annual...
- IV. Title: Studies...

101590

Office of Technical Services

61-16576

Fukuhara, Sotaru.  
EFFECTS OF WETTING (H<sub>2</sub>O) AND AIR-DRYING ON  
THE RECRYSTALLIZATION OF AMORPHOUS CELLU-  
LOSE FILM AND GEL CELLOPHANE FILM. [1961]  
[11]p. 8 refs.  
Order from SLA \$1.60

I. Fukuhara, S.

61-16576

Trans. of Kyoto Kagaku Zasshi (Japan) 1960, v. 63,  
no. 6, p. 1089-1091.

DESCRIPTORS: \*Cellulose, Crystallization, Cellulose  
chemistry, \*Plastic films.

The following experiments were carried out in order to  
study the effects of water and air-drying on the recrystallization of cellulose from the infrared spectra. Water  
in which gel cellophane was soaked was replaced with  
P<sub>2</sub>O<sub>5</sub>, then this was dried over P<sub>2</sub>O<sub>5</sub>. This was again  
moistened with H<sub>2</sub>O, and was again dried over P<sub>2</sub>O<sub>5</sub>.  
(Chemistry: Organic, IT v. 6, no. 7) (over)

Office of Technical Services

61-10831

Funaki, Koemon and Gejo, Tetuo.  
STRUCTURAL CHANGE OF ALUMINA-SILICA GEL.  
ATTENDANT UPON CALCINATION. [1961] 18p.

4 refs.

Order from SLA \$1.60

61-10831

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 7, p. 1166-1172.

DESCRIPTORS: \*Alumina-silica catalysts, \*Gels,  
Heat treatment, X-ray diffraction analysis,  
Structures.

I. Funaki, K.  
II. Gejo, T.

161611

Office of Technical Services

(Chemistry--Physical, TT, v. 6, no. 1)

Otsuka, Eiji, Yoshimura, Shinji and others.  
EQUILIBRIUM OF THE  $\text{NH}_3\text{-CO}_2\text{-H}_2\text{O}$  SYSTEM. Rept.  
no. 11 of Studies on the Synthesis of Urea; [Paper] read  
at the Annual Conference of the Chemical Society of  
Japan (no. 11) Apr 58. [1961] 17p. 13 refs.  
Order from SLA m\$2. 40, ph\$3. 30 61-10593

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 7, p. 1214-1218.

(Chemistry--Physical, TT, v. 5, no. 12)

61-10593

1. Ammonia-carbon  
dioxide-water systems--  
Phase studies
  2. Urea--Synthesis
  3. Chemical equilibrium--  
Measurement
- I. Otsuka, E.
  - II. Yoshimura, S.
  - III. Title: Studies...
  - IV. Title: Annual...

148577

Office of Technical Services



Otsuka, Eiji.  
EFFECTS OF INERT GASES PRESENT IN FLAME  
CARBON DIOXIDE ON SYNTHESIS AND KINETICS  
OF UREA. Rep. 10-7 of Studies on the Chemistry of  
Urea. May 10, 1964. 1 p.  
Order from SA 518-00

Trans. J. [Kogyo Kagaku Zasshi (Jpn.)] 66, 1205-1211, 1963.

DESCRIBED: Urea, synthesis, \*Carbon dioxide  
Gases, Ammonia, \*Hydrogen, Phase transition,  
Temperature, Liquid phase, \*Temperature, Reaction  
time.

(Chemistry--Organic, 1-1-1-1-1-1)

1. Urea  
2. Urea  
3. Urea

62-1174

Murai, K., Akamome, G., and Murakami, Y.  
STUDIES ON THE FORMATION OF PERACETIC ACID.  
Paper no. 6 on Study of Epoxy Fatty-Acid Esters.  
[1962] 113 p. (foreign text included); 4 refs.  
Order from SLA 41, 60 02 14774

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 7, p. 1233-1235.

DESCRIPTORS: \*Epoxides, \*Fatty acid esters,  
\*Acetic acids, Synthesis, Chemical equilibrium,  
Catalysts.

Some studies are made on the synthesis of peracetic  
acid from hydrogen peroxide and acetic acid. The  
equilibrium constant for peracetic acid formation at  
25-42°C. is found to be  $K = 3.26$ . The equilibrium  
constant for the reverse reaction is in close agreement.  
The apparent activation energy of 11.7 kcal/mole is  
obtained for peracetic acid formation in presence of  
(Chemistry--Organic, TT, v. 9, no. 2) (over)

Office of Technical Services.

61-10605

Takahashi, Takeo, Yoshida, Eiichi, and Masuko, Akiyoshi.  
 COMBUSTION STUDIES OF HYDROCARBONS BY THE  
 FLASH PHOTOLYSIS METHOD--ABSORPTION SPEC-  
 TRA OF FREE RADICALS AND DYNAMIC PRES-  
 SURES. Rept. no. 1 on Combustion Studies of Hydro-  
 carbons. [Paper] read at the Annual Conference of the  
 Chemical Society of Japan (no. 12) Apr 59 and at the  
 Symposium of the Petroleum Society (no. 2) Sep 59.  
 [1961] 17p. 9 refs.  
 Order from SLA ml\$2.40, ph\$3.30 61-10605

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
 no. 8, p. 1364-1387.

In order to elucidate the relationship between the struc-  
 ture of hydrocarbons and their combustibilities, the  
 knocking phenomenon, etc., the absorption spectra of  
 free radicals were measured by the flash [photolysis]  
 method developed by Norrish, and known [radicals of]  
 OH, CN, C<sub>2</sub>, CH, and NH were detected in the reaction  
 (Chemistry--Physical, TT, v. 5, no. 12) (over)

1. Hydrocarbons--  
Combustion
- I. Takahashi, T.
- II. Yoshida, E.
- III. Masuko, A.
- IV. Title: Combustion...
- V. Title: Annual...
- VI. Title: Symposium...

148589

Office of Technical Services

63-12282

Yamamoto, K., Morita, Y. and others.  
REACTION BETWEEN KEROSENE AND STEAM IN  
THE PRESENCE OF MULTICOMPONENT CATALYSTS.  
[1962] 11p.

Order from ATS \$19.75

ATS-67P64]

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 8, p. 1372-1376.

DESCRIPTORS: \*Kerosene \*Steam Chemical reac-  
tions, \*Catalysts.

I. Yamamoto, K.  
II. Morita, Y.  
III. ATS-67P64]  
IV. Associated Technical  
Services, Inc., East  
Orange, N. J.

(Chemistry--Physical, TT, v. 9, no. 2)

Office of Technical Services

61-22390

Mizutani, K., Shiraki, E., and Suzuki, S.  
EFFECTS OF CROSSLINKING TREATMENTS UPON  
MECHANICAL PROPERTIES OF POLYURETHANE  
FIBERS. [1961] 7p.  
Order from ATS \$10.60      ATS-32NS1J

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 9, p. 1514-1516.

1. Urethane polymers--  
Mechanical properties
2. Fibers--Mechanical  
properties
- I. Mizutani, K.
- II. Shiraki, E.
- III. Suzuki, S.
- IV. ATS-32NS1J
- V. Associated Technical  
Services, Inc., East  
Orange, N. J.

ATS-JJ-3098  
160930

Office of Technical Services

(Materials--Textiles, TT, v. 5, no. 12)

Temperature Specificity of Polyethylene  
Terephthalate Textiles, by K. Shirakashi, et al.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 63,  
1960, pp 1516-1520.  
NTC 71-13874-11E

Feb 72

Tsuji, W., Kitamaru, R. and others.  
GRAFT POLYMERIZATION OF VINYL MONOMERS  
ONTO POLYVINYL ALCOHOL FIBERS. [1961] 9p.  
Order from ATS \$14. 40                      ATS-56N55J

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 9, p. 1527-1530.

DESCRIPTORS: \*Vinyl alcohol, Polymerization.  
Polymers, Alcohols, \*Synthetic fibers, \*Fibers.

(Chemistry--Organic, TT, v. 7, pp. 2)

61-25713

- I. Title: Graft polymer-
- I. Tsuji, W.
- II. Kitamaru, R.
- III. ATS-56N55J
- IV. Associated Technol. of  
Services, Inc.,  
East Orange, N. J.

ATS-56N55J

Office of Technical Services

61-10840

Kamogawa, Hiroyoshi and Sekiya, Toshii.  
AQUEOUS POLYMERIZATION OF N-METHYLOL  
ACRYLAMIDE. Rept. 13 of Studies on Fiber-Treating  
Agents. [1961] 12p. 7 refs.  
Order from SLA \$1.60

61-10840

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 9, p. 1631-1635.

DESCRIPTORS: \*Acrylamides, Hydroxides, Methyl  
radicals, \*Polymers, \*Polymerization, Temperature,  
Acrylic resins, \*Fibers.

I. Title: Crosslinking  
I. Kamogawa, H.  
II. Sekiya, T.  
III. Title: Studies...

161620

(Office of Technical Services)

(Materials--Textiles, TT, v. 6, no. 1)



Kamogawa, Hiroyoshi and Sekiya, Toshii.  
CROSSLINKING OF POLYMETHYLOL ACRYLAMIDE  
BY THE APPLICATION OF HEAT. Rept. 14 of Studies  
on Fiber-Treating Agents. [1961] 12p. 3 refs.  
Order from SLA \$1.60 61-10838

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 9, p. 1636-1639.

DESCRIPTORS: \*Acrylamides, Hydroxides, Methyl  
radicals, \*Polymers, \*Polymerization, Temperature,  
Acrylic resins, \*Fibers.

(Materials--Textiles, TT, v. 6, no. 1)

61-10838

- I. Title: Crosslinking
- I. Kamogawa, H
- II. Sekiya, T.
- III. Title: Studies...

161615

Office of Technical Services

61-10839

Kamogawa, Hiroyoshi, Murase, Ryotchi, and Sekiya, Toshii.

CROSSLINKING OF EMULSION COPOLYMER OF N-METHYLOL ACRYLAMIDE AND ETHYL ACRYLATE BY THE APPLICATION OF HEAT. Rept. 15 of Studies on Fiber-Treating Agents. [1961] 15p. 4 refs. Order from SLA \$1.60 61-10839

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63, no. 9, p. 1639-1643.

DESCRIPTORS: \*Copolymerization, \*Polymers, \*Acrylamides, Methyl radicals, Hydroxides, Acrylic resins, Temperature, \*Fibers.

- I. Title: Crosslinking
- I. Kamogawa, H.
- II. Murase, R.
- III. Sekiya, T.
- IV. Title: Studies...

161619

Office of Technical Services

(Materials--Textiles, TT, v. 6, no. 1)

Stabilizing Effect of Epoxidized PVC, by  
Y. Fujikake.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 63,  
1960, pp 1669-  
NTC-71-16211-11I

Jan 72

62-34472

Tagawa, Hiroaki and Nakajima, Hitoshi.  
GRAPHITIZATION AND WET OXIDIZABILITY OF  
HEAT-TREATED PETROLEUM COKE. Rept. 2 of  
Studies on the Production and Properties of Carbides.  
Oct 62, 15p. 13 refs.  
Order from SA \$18.00 SA Code-G78

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 10, p. 1690-1694.

DESCRIPTORS: \*Carbides, Production, \*Coke, \*Pe-  
troleum, Heat treatment, Oxidation, \*Graphite, Crys-  
tallization, X-ray diffraction analysis, Towers  
(Chemistry)

(Engineering--Chemical, TT, v. 8, no. 12)

I. Tagawa, H.  
II. Nakajima, H.  
III. Title: Studies ...  
IV. SA Code-G78  
V. Seizaburo Aoki (Japan)

Office of Technical Services

|   |   |
|---|---|
| <p>Nakamura, Tadashi.<br/>STUDIES ON POLYGLUCOSE. [Paper] presented at the<br/>[Annual Conference] of the Chemical Society of Japan<br/>(no. 12) 2 Apr 59. [1961] [16]p. 14 refs.<br/>Order from SLA \$1.60</p> <p>Trans. of Kogyo Kagaku Zasshi (Japan) [1960] v. 63<br/>[no. 10] p. 1769-1772.</p> <p>DESCRIPTORS: Saccharides, *Glucose, *Polymerization,<br/>Condensation reactions, Polymers.</p> <p>(Chemistry--Organic, TT, v. 6, no. 5)</p> | <p>61-16125</p> <p>I. Nakamura, T.<br/>II. Title: Annual...</p> <p>180441</p> <p>Office of Technical Services</p> |
|---|---|

Iwanaga, Ryoji, Fujis, Takashi and others.  
 THE EFFECT OF ORGANIC BASES ON THE RATES  
 OF OXO REACTIONS. Studies on the Oxo Reactions  
 no. 2, May 67, 11p. 3 refs.  
 Order from SA \$18.00

SA Code-42

Trans. of [Kogyo Kagaku Zasshi (Japan) 1968, v. 71,  
 no. 10, p. 1754-1757].

DESCRIPTORS: \*Chemical reactions; Free radicals;  
 Acrylic acids; Methyl radicals; Amides; Styrene;  
 \*Cobalt compounds; \*Carbonyl radicals; Syn-  
 thesis; Catalysts; Catalysts.

(Chemistry--Organic, )

(2-1794)

I. Iwanaga, R.  
 II. Fujis, T.  
 III. Title, Studies on  
 IV. SA Code-42.  
 V. Searchable Subject

(SA Code-42)

Studies of Formaldehyde Resins. Part 52. Kinetic  
Studies of the Reactions of 2,4-dimethylbenzyl  
Alcohol and Bis-(2,4-dimethylbenzyl) Ether with  
Aliphatic Acids, by M. Imoto.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 63, No 10,  
1960, pp 1807-1811.  
ATS-JS-176

Sci-Chem

403,855

Furukawa, Junji, Saegusa, Takeo and others.  
POLYMERIZATION OF OLEFINS BY THE BINARY  
MIXTURE OF ORGANOMETALLIC COMPOUND AND  
SILICA-ALUMINA-TITANIA. May 62. 20p. 26 refs.  
Order from SA \$21.00 SA Code-107

Trans. of [Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 10, p. 1812-1817].

DESCRIPTORS: \*Ethylenes, \*Polymerization, Metal-  
organic compounds, Ethyl radicals, Aluminum com-  
pounds, Silicon compounds, Titanium compounds, Ox-  
ides, \*Catalysts, Cautilysis, Pressure, Molecular  
weight, Density, Temperature, Absorption, Infrared  
spectroscopy, Propenes, Butadienes, Polymers.

(Chemistry--Organic, TT, 1, 8, 10, 11)

62-17066

- I. Furukawa, J.
- II. Saegusa, T.
- III. SA Code-107
- IV. Senzoku Gakai (Japan)

Office of Technical Services



Sakata, Ryoza, Tsuruta, Teiji, and others.  
POLYMERIZATION OF PROPYLENE OXIDE AND  
VINYL COMPOUNDS WITH DIETHYLZINC IN THE  
PRESENCE OF COCATALYSTS. [1961] 20p. 30 refs.  
Order from SLA \$1.60 61-16519

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 10, p. 1817-1822.

DESCRIPTORS: \*Propanes, \*Epoxides, Vinyl radicals,  
\*Polymerization, Zinc compounds, Ethyl radicals,  
Catalysts, Polymers, Synthesis.

Elastic solid polypropylene oxide was obtained by the  
use of the following binary system catalysts: diethyl-  
zinc-oxygen, diethylzinc-water, diethylzinc-methanol,  
and diethylzinc-ethanol. The polymers obtained included  
crystalline polymers. Zinc alkoxides appeared to play  
an important role by the use of catalysts whose one  
component was oxygen, methanol, or ethanol. The  
(Chemistry--Organic, TT. v. 6, no. 6) (over)

61-16519

I. Sakata, R.  
II. Tsuruta, T.

176542

Office of Technical Services

Kinetic Investigation of the Reaction Between  
Aromatic Diisocyanate and Polyols, by  
T. Yokoyama.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 63,  
1960, pp 1835-1839.  
NTC-71-15512-07C

Feb 72

Matsuda, Y. and Tanaka, A.  
HIGH POLYMERS AS FUEL BINDERS. [1961] 15p.  
Order from ATS \$21.60      ATS-66N5-J

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 11, p. 1869-1875.

DESCRIPTORS: Binders, Fuels, Polymers.

61-22608

- I. Matsuda, Y.
- II. Tanaka, A.
- III. ATS-66N5J
- IV. Associated Technical  
Services, Inc., East  
Orange, N. J.

17532

Office of Technical Services

(Materials--Fuels, TT, v. 6, no. 3)

61-16520

Takimoto, Masayoshi and Yatsuo, Toru.  
SEPARATION AND DETERMINATION OF NON-  
CYCLIC CYANAMIDE DERIVATIVE MIXTURES AND  
EVALUATION OF PRACTICALIZATION THEREOF.  
Rept. no. 7 of Studies on Separation and Determination  
Methods for Cyanamide Derivatives. [1961] 13p. 8 refs.  
Order from SLA \$1.60 61-16520

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 11, p. 1941-1944.

DESCRIPTORS: \*Cyanamides., Determination. Separation,  
Colorimetric analysis.

Separations by ion-exchange resins and the colorimetric  
determination method were applied to various  
sample mixtures of the six types of non-cyclic cyanamide  
derivatives which are most common and which tend  
to co-exist most easily (viz., cyanamide, dicyandiamide,  
guanidine, biguanide, urea, and thiourea) and the  
(Chemistry--Analytical, TT, v. 6, no. 6) (over)

I. Takimoto, M.  
II. Yatsuo, T.  
III. Title: Studies...

176543

Office of Technical Services

TT-63-20358

Yamamoto, Ken'ichi, Morita, Yoshiro, Kurate,  
Takeshi, Yoshitomi, Sushiko.  
REACTION OF PURE C<sub>6</sub>-HYDROCARBON ON WATER  
VAPOR. Pt. 2 of Reaction of Petroleum on Water Vapor.  
[1963] 28p (Eigs omitted) 13refs  
Order from SLA \$2.60

TT-63-20358

I. Yamamoto, K.  
II. Morita, Y.  
III. Kurate, T.  
IV. Yoshitomi, S.  
V. Title: Reaction...

Trans. of Kyoto Kagaku Zasshi (Japan) 1960, v. 63  
[no. 11] p. 1943-1949. (Abstract available)

DESCRIPTORS: \*Petroleum, Hydrocarbons, \*Hexanes,  
\*Cyclohexanes, \*Benzenes, Chemical reactions,  
\*Catalysis, Nickel catalysts, \*Water vapor, Heat of  
reaction, Fuels, Gases.

Reaction of C<sub>6</sub>-hydrocarbon on water vapor becomes  
prominent above 800°C and the catalyst on basic  
carrier is apter to receive the influence of catalytic  
temperature. Reaction without catalyst requires  
(Chemistry--Organic, TT, v. 11, no. 3) (over)

Office of Technical Services

Mizutani, Kiyoshi, Shiroki, Eitarō, and Suzuki,  
Shōsaku.

RELATIONSHIP BETWEEN DRY SPINNING CONDI-  
TIONS FOR POLYACRYLONITRILE SYSTEM FIBERS  
AND THE FIBER PROPERTIES. Rept. no. 1 on Dry-  
Spinning of Acrylic System Fibers. [1961] 14p. 6 refs.  
Order from SLA \$1.60 61-16521

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 11, p. 2042-2045.

DESCRIPTORS: \*Polymers, \*Acrylonitriles, Synthetic  
fibers, Processing

Fibers which were obtained by dry-spinning dimethyl-  
formamide solutions of polyacrylonitrile or copolymers  
containing over about 94% of acrylonitrile, by passing  
them through a stainless steel nozzle into hot air, were  
studied in regard to the relationship between dye affini-  
ty and spinnability vs. dope heating method, solvent  
(Materials--Textiles, TT, v. 6, no. 6) (over)

61-16521

- I. Title: Spinning
- I. Mizutani, K.
- II. Shiroki, E.
- III. Suzuki, S.
- IV. Title: Dry-Spinning

176544

Office of Technical Services

61-16522

Takimoto, Masayoshi and Tawara, Masao.  
A SIMPLE DETERMINATION METHOD FOR AMMO-  
NIA IN CYANAMIDE DERIVATIVES BY MICRO-  
DIFFUSION ANALYSIS. [1961] Sp. 7 refs.  
Order from SLA \$1.10

61-16522

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63,  
no. 11, p. 2059-2060.

DESCRIPTORS: \*Ammonia, Determination, \*Cyan-  
amides, Chemical analysis, Microanalysis, Diffusion

I. Takimoto, M.  
II. Tawara, M.

176545

Office of Technical Services

(Chemistry--Analytical, TT, v. 6, no. 6)

63-20476

Yoshitomi, Susuko, Morita, Yoshio, and Yamamoto, Katschi.

**REACTION OF PURE HYDROCARBONS AND STEAM.**  
Pt. 3 of Reaction of Petroleum [on Water Vapor].

[1963] 32p 11 refs

Order from SLA \$3.60

63-20476

Trans. of [Kogyo Kagaku Zasshi (Japan) 1960, v. 63, no. 12, p. 2134-2140].

**DESCRIPTORS:** \*Steam, \*Hydrocarbons, \*Catalysts, \*Petroleum, Reaction kinetics, Pyrolysis, Statistical data.

There was found difference between the reactions of hydrocarbons and steam with neutral and basic catalysts, and neutral catalysts showed a better catalytic effect. As for the composition of gaseous product in the case of neutral catalysts, the sum of hydrogen and carbon monoxide amounted to 80-90% and it was not (Chemistry--Physical, TT, v. 10, no. 12) (over)

- I. Yoshitomi, S.
- II. Morita, Y.
- III. Yamamoto, K.
- IV. Title: Reaction ...

Office of Technical Services



ISHII, Y. and others.

KINETICS OF SUCCESSIVE ADDITION OF ETHYLENE OXIDE TO PHENOL. Pt. 3 of Studies of the Kinetics of the Ring-Opening Addition of Epoxy Compounds to the Active Hydrogen Compound. [1961] 17p. 9 refs.

Order from SLA \$1.60

61-18630

Trans. of Kogyo Kagaku Zasshi (Japan) 1960, v. 63 (no. 12) p. 2177-2180.

Portions of this report will not reproduce well.

DESCRIPTORS: \*Ethylene oxide, \*Phenols, \*Ethanol, \*Phenoxy radicals, Chemical reactions, Reaction kinetics.

This paper deals with the measurement of the addition reaction of ethylene oxide with phenol and phenoxy- (Chemistry--Organic, TT, v. 6, no. 12) (over)

61-18630

I. Ishii, Y.

II. Title: Studies...

1961

Office of Technical Services

Anomalies in Infrared Absorption Spectra by  
the Alkali Halide Disk Technique,  
by C. Makaso, H. Ito, 10 pp.  
FOR OFFICIAL USE ONLY  
JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXI,  
1960, pp 685-688. 9697643  
RSTC-381-T65-231

Sci - Phys  
Jul 65

284,258

Dosage du Chrome dans les Aciers Inoxydables par la  
Methode d'Analyse par Fluorescence aux Rayons X,  
by K. Momogi, 27 pp.

FRENCH TO JAPANESE, per, Kogyo Kagaku Zasshi, Vol VIA,  
No 1, 1961, pp 98-109. 9089596

CEA X-436  
Reverse Translation

Aug 62

61-18681

Kaji, Keiji.  
META-STABILITY OF GYPSUM SEMIHYDRATE IN  
MIXED ACIDS ( $H_3PO_4$ ,  $H_2SO_4$ ). Rept. no. 5 of  
Studies on the Preparation of Phosphoric Acid Solution  
by the Wet System. [1961] 22p. 5 refs.  
Order from SLA \$2.60 61-18681

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 1, p. 123-128.

Portions of this report will not reproduce well.

DESCRIPTORS: Acids, \*Sulfuric acid, \*Phosphoric  
acids, Solutions, Preparation, \*Gypsum, \*Hydrates,  
Stability, Measurement, Chemical reactions.

The meta-stability of gypsum semihydrate in mixed  
acids ( $H_3PO_4$ ,  $H_2SO_4$ ) of various concentrations was  
measured and the relationship between this meta-sta-  
bility and the reaction conditions of phosphoric acid  
preparation by the wet method was studied.

I. Kaji, K.  
II. Title: Studies...

(Chemistry--Inorganic,  
TT, v. 7, no. 1)  
Office of Technical Services

Titanium-Iodine System, by Koyuemon Funaki,  
Takataro Uchimura, et al, 20 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIV,  
129-237 pp, 1961.

AEC-tr-6007

Sci-Mat & Met  
Nov 63

241,354

63-18747

Muraide, Ichiro and Okajima, Yukio.  
EFFECT OF CURRENT DENSITY ON SOME PROPERTIES OF ELECTROLYTIC MANGANESE DIOXIDE.  
Rept. 4 on Experiments in the Manufacture of Electrolytic Manganese Dioxide. [1963] 15p. 17 refs  
Order from: SLA \$1.60 63-18747

I. Muraki, I.  
II. Okajima, Y.  
III. Title: Experiments ...

Trans. Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
p. 137-141.

DESCRIPTORS: \*Electrolytes, \*Manganese compounds,  
\*Dioxides, \*Dry cells, \*Wet cells, Density, Electric  
potential, \*Electrochemistry,

A study was made of the effects of current density on the relationship and adaptability of electrolysis conditions and the quality of manganese dioxide produced. Physical and electrochemical tests, galvanic cell tests and x-ray diffraction examination were run on the (Engineering--Electrical, TT, v. 10, no. 12) (over)

Office of Technical Service.

Ide, Fumio and Takayama, Yuji.  
GRAFT COPOLYMERIZATION OF METHYL METH-  
ACRYLATE ON CELLULOSE. [1961] 20p. 6 refs.  
Order from SLA \$1.60 61-16540

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 1, p. 213-218.

DESCRIPTORS: \*Cellulose, \*Acrylic resins, \*Copoly-  
merization, Polymers, Cellulose chemistry.

The ammonium salt of cerium nitrate was used as  
catalyst and methyl methacrylate was polymerized in  
the presence of cellulose. The effects of polymerization  
time, polymerization temperature, catalyst concentra-  
tion, monomer concentration, and nitric acid concentra-  
tion as factors which affect the polymerization were  
studied. The polymerization yield was proportional to  
the polymerization time, polymerization temperature,  
and nitric acid concentration, but was inversely propor-  
(Chemistry--Organic, TT, v. 6, no. 6) (over)

61-16540

I. Title: Graft polymers

I. Ide, F.

II. Takayama, Y.

ATS-55-3103

170550

Office of Technical Services

Syntheses of Polyvinylthiophenols, by Makoto  
Okawara, Yoshio Onishi, Eiji Imoto.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol. LXIV,  
No 1, 1961, pp 226-228.

SIA 61-18676

Sci

Mar 62

189,555

Vol. VII, No 2



Synthesis of Polymer thiols Containing Vicinal  
Sh Groups, by Makoto, Okawara, Kichi Haruki,  
et al, 12 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIV,  
No 1, 1961, pp 229-231.

SLA 61-13678

Sci  
Mar 62  
Vol VII, No 3

188,101

Characteristic Properties of a Lead Storage Battery  
Upon Use of a Phosphoric Acid Anode Paste, by  
T. Ishikawa.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 64, 1961,  
pp 264-266.  
NTC-71-12078-07D

Nov 71

A Study on the Reducing Reaction of Titanium  
Tetrachloride to Titanium Trichloride, by  
T. Ishino.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 64,  
1961, pp 1344-1347.

NTC 71-15651-07B

Mar 72

Synthesis of Dichloroparabanic Acid  
and its Utilization, by Y. Oda.  
JAPANESE, per, Kogyo Kagaku Zasshi,  
Vol 65, No 2, 1962, p 294  
NTC 72-11586-07C

June 72

Moisture Absorption of a Few Kinds of Polymers,  
by S. Chujo.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67, 1964,  
pp 343-348.  
NTC-71-12492-07D

Nov 71

The Polymerization of N-Acryloyl Acrylamide,  
by Y. Miyake.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 64,  
1961, pp 359-361.

NTC-71-11695-07C

Feb 72

Suzawa, Toshiro.  
ZETA-POTENTIAL AND SURFACE CHARGE DENSITY OF WOOL FIBER IN BASIC DYE SOLUTION.  
Studies on Zeta-Potential of Natural and Synthetic Fiber in Dye Solutions, no. 11. [1961] 11p. 4 refs.  
Order from SA \$15.00

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64, no. 2, p. 367-368.

DESCRIPTORS: \*Woolen textiles, Textiles, \*Synthetic fibers, \*Dyes, Surface area, Surface properties.

(Materials--Textiles, TT, v. 7, no. 5)

62-12402

- I. Title: Zeta potential
- I. Suzawa, T.
- II. Title: Studies ...
- III. Seizaburo Aoki (Japan)

Office of Technical Services

Suzawa, Toshio.

RELATIONSHIP BETWEEN SURFACE CHARGE DENSITY AND DYE ADSORPTION OF VINYLON IN DIRECT DYE SOLUTION. Rept. 12 of Studies on  $\zeta$ -potential of Natural and Synthetic Fibers in Dye Solution. Oct 62. 22p. 3 refs.

Order from SA \$24.00

SA Code-G23B

Trans. in manuscript of Kogyo Kagaku Zasshi (Japan) 1961, v. 54, no. 2, p. 369-372.

DESCRIPTORS: Textiles, \*Synthetic fibers, \*Vinyl radicals, Surface properties, Electric fields, Density, \*Dyes, Solutions, Adsorption.

(Materials--Textiles, TT, v. 8, no. 12)

62-4470

1. Title: Zeta potential
2. Title: Vinylon
- I. Suzawa, T.
- II. Title: Studies ...
- III. SA Code-G23B
- IV. Se zaburo Aoki (Japan)

Office of Technical Services



Effects of Ionizing Radiation on Polyethylene.  
Terephthalate, by H. Sobue, Y. Tabata, et al.  
TRANSACTIONS, per, Kogyo Kagaku Zasshi, Vol LXIV, <sup>Nov,</sup> 1961,  
pp 372-374.  
NASA TT F-8450

Sci - Chem

Mar 64

U. S. GOVERNMENT ONLY

251,963

62-34455

Sobue, Hiroshi, Tabata, Yoneho, and Oda, Eisuke.  
RADIATION-INDUCED POLYMERIZATION OF METH-  
ACRYLONITRILE. Oct 62, 6p. (figs. omitted) 3 refs.  
Order from SA \$15.00 SA Code-G284

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 2, p. 378-379.

DESCRIPTORS: \*Acrylonitriles. Polymerization, \*Ra-  
diation effect, Inhibition, Viscosity; Infrared  
spectroscopy.

I. Sobue, H.  
II. Tabata, Y.  
III. Oda, E.  
IV. SA Code-G284  
V. Seizaburo Aoki (Japan)

(Materials--Plastics, TT, v. 8, no. 12)

Office of Technical Services

Nakamura, Y.  
DIFFERENTIAL THERMAL ANALYSIS OF PHENOL-  
FORMALDEHYDE RESINS. [1963] 8p  
Order from ATS \$9.85

ATS-26Q73]

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 2, p. 392-393.

DESCRIPTORS: \*Phenol-formaldehyde resins,  
Calorimetry.

(Materials--Plastics, TT, v. 11, no. 4)

TT-64-12204

- I. Nakamura, Y.
- II. ATS-26Q73]
- III. Associated Technical  
Services, Inc.,  
East Orange, N. J.

Office of Technical Services

Tanaka, Hisao.

THE EFFECT OF OXYGEN ON THE GELATION OF  
UNSATURATED POLYESTER RESIN. Oct 62, 7p.  
(figs. omitted) 2 refs.

Order from SA \$15.00

SA Code-G290

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 2, p. 396-398.

DESCRIPTORS: \*Esters, Polymers, Resins, \*Styrenes,  
\*Gels, Oxygen, Preservation, Carbon dioxide, Rare  
gases.

(Materials--Plastics, TT, v. 8, no. 12)

62-34463

- I. Tanaka, H.
- II. SA Code-G290
- III. Seizaburo Aoki (Japan)

Office of Technical Services

Curing Reaction of Epoxy Resin with Amine Hardener,  
by T. Kakusai, T. Noguchi.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 64, 1961,  
pp 398-404.  
LTC 69-11293-111

Sci-Mat  
July 69

387,140

Kawai, Wasaburo and Tsutsumi, Shigeru.  
REACTION OF PHENOL AND BUTADIENE UNDER  
THE OXYGEN PRESSURE. Oct 62, 12p. 6 refs.  
Order from SA \$18.00 SA Code-G303

Trans. in manuscript of Kogyo Kagaku Zasshi (Japan)  
1961, v. 64, no. 3, p. 467-468.

DESCRIPTORS: \*Phenols, \*Butadienes, Chemical re-  
actions, Oxygen, Pressure, \*Phenoxy radicals, Poly-  
merization, Inhibition.

(Chemistry--Organic, TT, v. 8, no. 12)

52-34469

- I. Kawai, W.
- II. Tsutsumi, S.
- III. SA Code-G303
- IV. Kogyo Kagaku Zasshi (Japan)

Office of Technical Services

Concentration of Sea Water by the Gas Hydrate  
Method. Report No II. Phase Equilibrium of  
Dichlorodifluoromethane and Monochlorodifluoro-  
methane Hydrates, by M. Hashizume  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
1964, pp 518-523  
NTC 71-15101-07C

mar 72

Matsuda, H. and Matsuda, S.

QUANTITATIVE ANALYSIS OF HALOGENS IN  
ALKYL TIN HALIDES BY HIGH-FREQUENCY TI-  
TRATION. [1961] 5p.

Order from ATS \$8.00

ATS-28N56]

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 3, p. 539-540.

DESCRIPTORS: \*Halogens, Quantitative analysis,  
Alkyl radicals, Halides, High frequency, Titration,  
Tin compounds.

(Engineering-Chemical, TT, v. 7, no. 10)

62-12074

I. Matsuda, H.

II. Matsuda, S.

III. ATS-28N56]

IV. Associated Technical  
Services, Inc., East  
Orange, N. J.

62-12074

Office of Technical Services



Matsuda, H., Taniguchi, H., and Matsuda, S.  
REACTIONS BETWEEN ALKYL CHLORIDES AND  
TIN. [1961] 7p.

Order from ATS \$12.65

ATS-27N56]

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 3, p. 541-543.

DESCRIPTORS: \*Alkyl radicals, \*Chlorides, \*Tin,  
Chemical reactions.

(Engineering--Chemical, TT, v. 7, no. 10)

62-12075

- I. Matsuda, H.
- II. Taniguchi, H.
- III. Matsuda, S.
- IV. ATS-27N56]
- V. Associated Technical  
Services, Inc., East  
Orange, N. J.

Office of Technical Services

62-34471

Suzawa, Toshiro.

$\zeta$ -POTENTIAL, SURFACE CHARGE DENSITY, SURFACE DYE ADSORPTION AND EFFECTIVE SURFACE AREA OF NATURAL AND SYNTHETIC FIBERS IN DYE SOLUTION. Rept. 13 of Studies on  $\zeta$ -Potential of Natural and Synthetic Fibers in Dye Solution. Oct 62, 20p. 13 refs.

Order from SA \$21.00

SA Code-G26

Trans. in manuscript of Kogyo Kagaku Zasshi (Japan) 1961, v. 64, no. 3, p. 573-576.

DESCRIPTORS: Textiles, \*Synthetic fibers, \*Woolen textiles, \*Cotton textiles, Surface properties, Electric fields, \*Dyes, Solutions, Adsorption.

(Materials--Textiles, TT, v. 8, no. 12)

- I. Title: Zeta potential
- I. Suzawa, T.
- II. Title: Studies ...
- III. SA Code-G26
- IV. Seizaburo Aoki (Japan)

Office of Technical Services

Separation of Polyethylene Glycol from the  
Nonionic (Surface) Active Agent by the Method  
of Counter-Current Distribution Extraction,  
by Kinshiko Nagase, Kahei Sakaguchi, 11 pp.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIV,  
I No 4, 1961, pp 635-638.

I SLA 61-20681

Sci  
Mar 62  
Vol VII, No 3

188, 095

Chromatographic Behavior of Condensed Poly-  
molecular Hydrocarbons, by T. Nagai, M. Funa-  
hiko, 25pp, 22.80.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXIV,  
No 4, 1961, pp 643-653.

ATS JJ-3970

Sci-Chem  
Dec 63

244, 864

Parabanic Acid-formaldehyde Resins, by R. Oda,  
R. Baba.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 64,  
No 4, 1961, pp 741-742.

ATS-JS-175

Sci-Chem  
Mar 70

403,854

Murata, Yoko and Takenishi, Tadao.  
DIRECT GAS CHROMATOGRAPHIC ANALYSIS OF  
ORGANIC COMPOUNDS IN AQUEOUS SOLUTION.  
[1963] [17p. (foreign text included) 5 refs. 63-18024  
Order from S.I.A. \$1.60]

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 5, p. 787-791.

DESCRIPTORS: \*Organic compounds, \*Gas chromatog-  
raphy, \*Butanol, \*Methanol, \*Propanols, \*Acryloni-  
triles, \*Propionitriles, \*Aldehydes, \*Amino acids,  
Chromatographic analysis. Solvents. Water.

(Chemistry--Analytical, TT, v. 10, no. 6)

63-18024

I. Murata, Y.  
II. Takenishi, T.

63-18024

Kashima, Kan and Osada, Takeshi.  
HIGH PRESSURE HYDROCRACKING OF LIGNIN.  
Rept. 1 of A Study of the High Pressure Hydrocracking  
of Lignin. [1962] 10p. (figs. tables omitted) 4 refs.  
Order from SLA \$1.10 62-20254

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 5, p. 916-919.

DESCRIPTORS: High pressure research, \*Crazing,  
\*Sulfate pulp, Chemical waste, \*Lignin.

The best conditions for manufacturing samples suitable  
for hydrocracking from the sulfite pulp waste liquor  
were sought. High pressure hydrocracking was carried  
out by using these samples and employing phenol,  
cyclohexanol, tetralin as the solvents, and the reaction  
conditions, material balance and the composition of the  
oils produced were examined. Among the oils produced,  
(Chemistry--Organic, TT, v. 9, no. 9) (over)

62-20254

I. Kashima, K.  
II. Osada, T.  
III. Title: Study ...

Office of Technical Services

62-10222

Ide, Fumio.  
GRAFT COPOLYMERIZATION OF VINYL ACETATE  
ON CELLULOSE. [1961] 13p. 4 refs.  
Order from SLA \$1.60

62-10222

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 5, p. 925-928.

DESCRIPTORS: \*Vinyl radicals, \*Acetates,  
\*Cellulose, \*Copolymerization, Polymerization,  
Temperature, Velocity, Catalysts, Catalysis,  
Nitric acid, Acids, Chemical reactions, Polymers.

Graft polymerization of vinyl acetate on cellulose was  
attempted using ceric ammonium nitrate as the initia-  
tor, and the effects of the polymerization temperature,  
polymerization time, catalyst concentration, monomer  
concentration, and nitric acid concentration as the  
various conditions affecting the polymerization, and  
(Chemistry--Organic, TT, v. 7, no. 9) (cver)

1. Title: Graft polymers  
1. Ide, F.

Office of Technical Services



62-34476

Kunichika, S. and Katagiri, T.  
SYNTHESIS OF VINYL SULFONIC ACID (VS) AND  
THE MONOMER REACTIVITY RATIO (MRR) AND  
DYEABILITY OF ITS COPOLYMER WITH ACRYLONI-  
TRILE. Rept. 1 of Studies on Vinyl Sulfonic Acid.  
Oct 62, 24p. 11 refs.  
Order from SA \$24.00

SA Code-G419

Trans. in manuscript of Kogyo Kagaku Zasshi (Japan)  
1961, v. 64, no. 5, p. 929-932.

DESCRIPTORS: \*Vinyl radicals, \*Sulfonic acids,  
Synthesis, Chemical reactions, \*Dyes, \*Acrylonitrile,  
Polymerization.

- I. Kunichika, S.
- II. Katagiri, T.
- III. Title: Studies ...
- IV. SA Code-G419
- V. Seizaburo Aoki (Japan)

(Chemistry--Organic, TT, v. 8, no. 12)

Office of Technical Services

Effects of Water-Soluble Rust Preventives on  
Mild Steel in Aqueous Solutions, by S. Sato,  
Y. Kato, A. Kawai.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol XLIV,  
1961, pp 1013-1017.

BISI 2480

Sci - Chem

Jul 62

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Sato, Seimo, Kato, Yoichi, and Hori, Matsumi.  
ON THE RUST-PREVENTIVE PROPERTIES OF THE  
DERIVATIVES OF THE MALEINATED OLEIC ACID.  
Oct 62, 13p. 15 refs.  
Order from SA \$15.00

SA 6000-014

I. Sato, Seimo  
II. Kato, Yoichi  
III. Hori, Matsumi  
IV. ...  
V. ...

Trans. of Kogyo Kagaku Zasshi (Japan) 1961, v. 64,  
no. 6, p. 1017-1020.

DESCRIPTORS: •Corrosion inhibition, Rusts, •Fatty  
acids, Maleic acid, Humidity, Chemical reaction,  
Purification.

(Metallurgy--Corrosion, JTC, v. 8, no. 12)

... Technical Reports